

***Serial Number: 09/424,181***

**REMARKS**

Favorable reconsideration of this application as presently amended is respectfully requested. Claims 2-8 and 11 are pending. Claim 1 is canceled and claims 2-8 are amended. No new matter is added.

Claims 1-8 and 11 are rejected under 35 U.S.C. § 112, second paragraph. The Examiner is thanked for pointing out the specific objectionable language. Claim 1 has been canceled and claims 2-8 have been amended to comply with the requirements of 35 U.S.C. § 112, second paragraph and to more distinctly define the subject matter of the present invention. Thus, the rejection under § 112 has been obviated and should be withdrawn.

Claim 1 is rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,798,249 to Braxton. Claim 1 is also rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,309,644 to Chandreshekar. Claim 1 is also rejected under 35 U.S.C. § 102(b) as being anticipated by Ryser (PNAS 91, 4559, 1994). Claim 1 is also rejected under 35 U.S.C. § 102(b) as being anticipated by Morjana (Biochem 30, 4985, 1997). These rejections are obviated by the cancellation of claim 1.

Since the § 112 rejection of claims 1-8 and 11 has been obviated and there are no pending rejections of claims 2-8 and 11, the allowance of claims 2-8 and 11 is respectfully requested.

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If the Examiner has any questions or concerns regarding the present response, the Examiner is invited to contact Steven J. Prewitt at 703-591-2664. In view of the foregoing, it is respectfully submitted that this application is in condition for allowance, and favorable action is respectfully solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Steve J. Prewitt", written over a horizontal line.

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June 24, 2002



**For: INHIBITION OF CELL SURFACE PROTEIN  
DISULFIDE ISOMERASE**

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) **Examiner: Lukton, D.**

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) **Art Unit: 1653**

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) **Docket No.: UNME-00**

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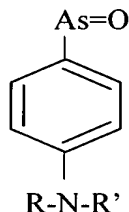
**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

Below are the amendments in the accompanying Amendment for the above-identified application shown in redlined format:

Please cancel claim 1, without prejudice or disclaimer.

Please amend the claims, without prejudice or disclaimer, as indicated below:

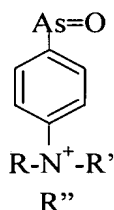
2. (Amended) ~~An~~ membrane-impermeable inhibitor of protein disulfide isomerase (PDI) according to Claim 1 of ~~having~~ the formula:



wherein at least one of R and R' is a charged ligand containing from 1 to 6 carbon atoms.

3. ~~(Amended)~~ An inhibitor according to Claim 2, wherein the charged ligand contains at least one sulfonate  $\text{SO}_3^-$  group.

4. ~~(Amended)~~ An inhibitor according to Claim 2, wherein the ligand is a straight chain or branched alkyl group containing 1, 3, 4, or 6 carbon atoms and at least one  $\text{SO}_3^-$  sulfonate group.
5. ~~(Amended)~~ An inhibitor according to Claim 2, wherein the ligand is an aryl group containing at least one  $\text{SO}_3^-$  sulfonate group.
6. ~~(Amended)~~ The inhibitor of Claim 5, wherein the  $\text{SO}_3^-$  sulfonate group is attached to a ring carbon atom.
7. ~~(Amended)~~ The inhibitor of Claim 6, wherein the  $\text{SO}_3^-$  sulfonate group is attached to the ring carbon atom via a  $\text{C}_1$ - $\text{C}_6$ -alkylene group.
8. ~~(Amended)~~ An membrane-impermeable inhibitor of protein disulfide isomerase (PDI) according to claim 1 of having the formula:



wherein R is H or alkyl.

11. An inhibitor according to Claim 2, wherein one of R or R' is an uncharged H or  $\text{C}_1$ - $\text{C}_6$ -alkyl ligand.